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RESEARCH ARTICLE

School-induced fatigue: Theoretical analysis of the concept of school burnout

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Abstract

School burnout is a set of detrimental symptoms that include emotional exhaustion, cynicism, and reduced personal accomplishment. In children and adolescents it is associated with many physical and mental health problems, including heart diseases, hormonal disorders, disrupted sleep quality, depressive symptoms, and diminished life satisfaction. It corresponds with a higher likelihood of poor academic performance and drop-out rates. The text includes a theoretical analysis of factors corresponding with the development and maintenance of school burnout. The data presented in the literature proves that students dealing with extreme schoolwork overload, accompanied with poor time management, and unrealistic goals, faced with excessive family demands, experiencing disturbances in sleep habits, poor eating habits, and limited or no physical exercise are more prone to develop and sustain symptoms of school burnout. Besides the excessive workload and problems in relationships with parents and peers among risk factors there are usually mentioned feelings of lack of control over things, high demands, and pressure an individual experiences. Protective factors include social support and a positive school atmosphere. Application of knowledge concerning school burnout in real educational settings may result in increase of well-being and resilience of students, and decrease in symptoms of mental problems. It will also help create a meaningful school environment.

Keywords: educational system, prevention, protective factors, risk factors, school burnout

INTRODUCTION

School burnout, educational burnout or school fatigue is a relatively new concept. At first it was described in student's population, especially those involved in studies related to helping (e.g. social work, nursing). Later symptoms of school burnout were observed and described in adolescents and children as well. It is believed that school fatigue is connected with decrease in motivation, lower self-esteem and high levels of stress (Kuittinen, & Meriläinen, 2011). In students suffering with school burnout there are observed excessive workload, pressure from parents and failure to meet school requirements (Atik, & Çelik 2021; Yıldız, & Kılıç 2020).

School burnout is perceived as one of the factors significantly reducing the quality of life, and leading to the increase in general psychopathology of people under 18 years of age. Studies conducted so far prove that an increase in the level of school burnout is connected with decrease in mental health of students (Długosz, & Liszka, 2021). Positive correlations were discovered between school burnout and depressive symptoms (e.g. Aghajani Liasi et al., 2021; Andriyani et al., 2017; Fiorilli, Pepe et al., 2017; Kossewska et al., 2022; Macałka et al., 2022). There is also data on correlations between burnout symptoms and anxiety disorders (e.g. Aghajani Liasi et al., 2021; Gao, 2023). In some studies it was suggested that school burnout predicts depressive symptoms (Salmela-Aro, Savolainen et al., 2009).

Among the risk factors responsible for the development of school fatigue there are external stressors (e.g. load of school tasks, demands from caretakers) and internal stressors (e.g. low self-esteem, fear of failure) (Aypay, & Sever, 2015). The person suffering with school burnout feels extremely overwhelmed, experiences decrease in motivation, and resigns from any type of activities they were previously involved in.

The factors responsible for school burnout differ between children and adolescents. In children the most important are factors connected to school demands and parental pressure, while in adolescents besides two mentioned above lack of free time and insufficient time for rest are mentioned (Aypay, 2011, 2012). The mentioned above difference between children and adolescents results probably from different developmental stages and developmental tasks the representatives of those two groups realize. According to the literature for children it is more important to learn how to obey school rules, and follow the instructions while adolescents discover their

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own identity and look for their own preferable activities (Hauser-Cram et al., 2013). Since the basic needs of children are connected with their 'fitting' to the society they pay more attention to the pressure from teachers and parents who give them instructions on how to function well in the social environment. At the same time adolescents' need to find their individual path requires more 'self-time', hence the difference between both groups in terms of risk factors of school burnout.

Protective factors include persistence, resilience, and social support (Tang et al., 2021). Also important on that matter are satisfying relationships with peers and teachers (Farina et al., 2020), high levels of assertiveness, highly developed abilities to maintain daily routine, abilities to plan and set realistic goals. It was also discovered that people with high abilities to take care of themselves, individuals who are planning the time for relaxation and rest, as well as persons negotiating deadlines for tasks completion are less prone to school burnout (Aypay, 2016; Bilge et al., 2014).

In the following paragraphs more detailed information on school burnout will be given. There will be presented some data concerning risk and protective factors corresponding to burnout observed in students. Special attention will be given to the educational environment, and factors that are connected to teachers' attitudes as well as to the environment itself. Their role in development and maintenance of symptoms of school burnout will be shortly presented. Next, some ideas for preventive programs will be introduced, and followed by short guidelines for teachers and other staff members working directly with students. It is important to emphasize at this point that all the information presented in the article is theoretical in its nature, so the next step should include empirical analyses and verification of ideas presented in the text.

School burnout

School fatigue is usually described as a significant reduction of involvement in activities related to school life, manifestation of negative attitudes towards school, and feelings of misfit with the environment (Salmela-Aro, Kiuru, & Nurmi, 2008). School burnout is also understood as a process of emotional, cognitive and physical exhaustion appearing in response to the excessive demands of the school system and educational processes (Aypay & Sever 2015). It also corresponds with permanent and/ or gradually increasing levels of stress and school failures (Yıldız, & Kılıç, 2020).

It is suggested that school burnout is similar to work burnout. It develops gradually starting with physiological symptoms (e.g. headaches, reduced immunity). Next, problems within social functioning appear (e.g. reluctance to establish and maintain contacts with other people). After that cognitive impairments are observed (e.g. difficulties with remembering and concentration), followed by psychoemotional problems (e.g. lowered mood, increased levels of irritation). The last stage of school burnout development is connected with spiritual symptoms (e.g. lack of meaning in life) (Widlund et al., 2021).

School burnout, similarly to work burnout, is described based on the assessment of three factors: (1) exhaustion with school duties, (2) cynical attitudes towards school, and (3) beliefs about one's ineffectiveness with school activities (Salmela-Aro, & Upadyaya, 2014). Increase in the severity of burnout symptoms leads to somatic impairments, which can cause heart and cardiovascular diseases, digestive problems and digestive system diseases or hormone metabolism disorders (Długosz, & Liszka, 2021). Individually experienced tension causes an increase in irritability levels and a tendency for social isolation. Abilities for acquiring new knowledge, recalling memorized information, and decision-making decrease constantly in burnout students (Fiorilli et al., 2017). What's more, high levels of burnout symptoms cause high levels of helplessness and dispiritedness, which in result may cause behaviors that are socially undesirable and/ or violate social norms (Salmela-Aro, & Upadyaya, 2020). The most detrimental effects of school burnout include loss of life satisfaction, significant decrease in quality of life, and loss of sense of autonomy (Salmela-Aro, & Tynkkynen, 2012). The similarities and differences between school burnout and work burnout are presented in Table 1.

School burnout affects both educational processes and student's achievements (Salmela-Aro, & Upadyaya, 2017). It corresponds with high levels of exhaustion resulting from intensive engagement in studying, and highly developed efforts to meet excessive school demands. Those extreme efforts combined with unsatisfactory results an individual receives at school lead to development of belief about one's incompetence and insufficient achievements. In effect the negative attitudes towards school and all types of activities connected with school are formed and intensified (Lee et al., 2010).

Burnout students experience exhaustion and feelings of incompetence which lead to intensification of levels of stress connected to school and school duties. They also feel uncertain about their future, they report experiencing strong anxiety, and catastrophize about anticipated incompetence in their future job. They expect difficulties in their future family life, anticipate making poor quality friendships, and believe to have limited chances for financial success in their future (Atik, & Çelik, 2021). Among consequences of school burnout are mentioned: decline in school achievements (e.g. Erdinç et al., 2014; Madigan, & Curran, 2021; Stoliker, & Lafreniere, 2015), lack of motivation to perform school-related tasks (Felaza et al., 2020; Özhan, & Yüksel, 2021), negative attitudes towards school, decline in perceived effectiveness in relation to school tasks, increase in absenteeism and risk of school dropout (e.g. Bask, & Salmela-Aro, 2013; Gubbels et al., 2019). It should be therefore stated that school burnout leads to many serious problems corresponding to student's engagement and their achievements both in short-term as well as in long-term periods (Atik, & Çelik, 2021).

It is believed that females, in comparison to males, are more at risk of experiencing symptoms of school burnout (Erturgut, & Soyşekerci, 2010; Salmela-Aro, Kiuru et al., 2009; Salmela-Aro, Savolainen et al., 2009). Even though in the literature there is data proving otherwise (Aypay, & Sever, 2015), most results present higher levels of school burnout in girls in comparison to boys (Herrmann et al., 2019; Walburg, 2014). It is believed that the observed pattern of results is connected with greater expectations toward girls in comparison to boys in the field of academic success, grades, frequency of attending higher tracks, levels of discipline and general engagement (Herrmann et al., 2019). It was also hypothesized that the longer an individual deals with the educational system, the more they are prone to develop a full range of symptoms of school burnout (Bernhard, 2007), even though symptoms of school fatigue are observed in younger and older students as well. This result is probably an effect of

prolonged exposition to stress, and excessive demands an individual is not able to cope with (Meylan et al., 2020), but further studies on that matter would be needed.

Table 1. Similarities and differences between school burnout and work burnout

	SIMILARITIES	
Symptoms	exhaustion, cynicism, decreased satisfaction with work done	
Developmental course	physiological symptoms, difficulties in social functioning, cognitive impairments, psychoemotional problems, feelings of hopelessness	
External factors	Work overload, external pressure to get things done	
Internal factors	Lack of self-confidence, feeling overwhelmed, fear of failure, maladaptive coping styles	
Long-term physical problems	Physical pain, headaches, fatigue, sleep problems, decreased immunity, frequent illnesses, gastrointestinal problems, high blood pressure, heart diseases	
Long-term psychological problems	Decreased satisfaction, cynicism, anger, irritability, loss of motivation, difficulties with concentration, helplessness, anxiety, depression	
Long-term social problems	absenteeism, social isolation, diminished work quality, increase in negative attitudes	
	DIFFERENCES	
	School burnout	**Work burnout**
Group	Middle school students, High school students, University students	Teachers, Medical doctors, Artists, Social workers, Police workers, Emergency services workers, other professions related to helping
Specific factors	Parental pressure, mismatch with school requirements, loss of interests in school, overload with homework assignments, pressure from teachers, the need for rest and free time	Confusing work responsibilities, deadline pressure, lack of autonomy, unfair treatment, excessive workload
Risk factors	Social distance, information overload, peer violence rivalry and hostility, inappropriate parental attitudes, pathologies within family system, neglectful attitudes toward children or teenagers	Lifestyle, addictions, social changes, competitive work environment, lack of social support, pressure from management

Based on the research published so far it is not possible to prepare a cause and effect description of relationships between school burnout and health problems observed in students. According to the literature there are associations between school burnout and cardiac hyperactivity during conditions of cardiac stress and recovery. Arterial stiffness and blunted diurnal blood pressure variability was discovered in people suffering from school burnout (May, Sanchez-Gonzalez, Brown et al., 2014; May, Sanchez-Gonzalez & Fincham, 2014; May et al., 2016). It was also observed that school burnout is connected with long lasting stress perceived as exceeding an individual's coping capacities (Chang et al., 2017; McEown et al., 2023). It is not clear though how much variance of above mentioned health problems is connected with symptoms of school burnout. Further studies in that area are needed.

School burnout: risk factors

The factors causing school burnout can be divided into those connected with the natural environment, school and family environment, and individual predispositions. Among factors connected with the natural environment there are global and/ or local factors that affect most of the society, and correspond with social, economical, and political aspects of functioning, as well as traumatic events such as armed conflicts, epidemics and natural disasters (e.g. Alsharif et al., 2023; Lacombe et al., 2023; Liu et al., 2023).The real life example comes from the students of Polish middle and high schools, who reported a lot of difficulties and rapid decrease in their mental functioning after the school lockdown during the pandemic of COVID-19. At that time there were many students seeking professional help and reporting fatigue and exhaustion, decline in academic performance and increase in apathy levels. Similar symptoms were reported by both Polish and Ukrainian students attending Polish schools after they were faced with modified educational environments resulting from the Ukrainian immigration wave in the February of 2022. This was the time when Ukrainian students were invited to participate in regular classes and educational activities with Polish students, which was unexpected and abruptly introduced to the educational facilities.

Factors connected with the school environment include physical, emotional, and cognitive factors directly related to students' functioning (e.g. Alsharif et al., 2023). Most of the students suffering school burnout report experiencing anxiety, irritability, tearfulness, aggressiveness or psychosomatic symptoms that are results of misfit between school demands and student's needs. Unsuitable physical school environments include for example class hours that are not fitted to the developmental needs of students (e.g. classes starting at 7.00 A.M.), improperly planned during the school hours time for physical activity or lunch break. Emotional factors in the school system comprise pressure from the teachers corresponding to their high demands and lack of understanding for students' needs and difficulties (e.g. overlapping tests in different subjects at the same school day) lack of understanding for students' tiredness or need for free time. Cognitive factors are connected with high curriculum demands and teachers' expectations.

Family environment include general atmosphere within the family system, and parental attitudes toward offspring (e.g. Luo et al., 2020; Macałka et al., 2022). Among the most crucial family factors there are emotional neglect, high expectations and pressure for the school results (e.g. Yeom et al., 2020). Family factors responsible for development of school burnout are also connected with offspring's invalidation (e.g. parental lack of understanding for child's tiredness or need for time for rest or parental lack of understanding of child's emotions) (e.g. Moroń, & Atłas, 2022). Authoritarian, permissive or uninvolved parenting style may also contribute to the

development of school burnout. In an authoritarian family a child may experience fear connected with anticipated rejection of parental requirements which will cause overinvolvement in school duties, while in a permissive and uninvolved family environment a child may seek parental attention and approval with excessive involvement in school activities (Yao et al., 2023).

Individual factors are connected with internal features (such as temperament) that affect everyday functioning and coping (e.g. Chacón-Cuberos et al., 2019; Lin, & Yang, 2021).Among the most important temperamental features connected with increased risk for school burnout, high levels of emotional reactivity should be mentioned. This feature is responsible for a tendency to react intensively to stimuli generating emotions and is connected with high proneness to overstimulation (Strelau, 1974, 2008). High levels of negative affectivity (e.g. Pourghaz et al., 2017) as well as high levels of neuroticism (e.g. Yusoff et al., 2021) may also contribute to problems with overcoming difficulties, and in effect lead to the development of school burnout. Individuals with high levels of emotional reactivity, negative affectivity and/ or neuroticism are very sensitive to any type of information subjectively perceived as unpleasant. They are extremely careful about any feedback from their teachers and parents, and they try to maintain high approval and acceptance from meaningful others such as parents and teachers. At the same time they also try to fit into the peer groups, therefore they feel high pressure which may result in decrease of well-being and in a long time perspective may cause development of school burnout (Sulea et al., 2015).

Research conducted up to date proves that socio-economical conditions and political factors intensify unpleasant feelings, increase the belief about world's unpredictability, and intensify feelings of stress. Feelings of uncertainty and exhaustion are usually augmented by global or local disasters, armed conflicts or epidemics (Carpiniello, 2023; Chałupnik et al., 2022; Makwana, 2019; Murthy, & Lakshminarayana, 2006; Zhang et al., 2022). Exposition to inappropriate social and/ or media information increase the risk of development of school burnout (Besschetnova et al., 2021; Bozzola et al., 2022), as well as exposition to violence, hostility or pathological competition (Ingram et al., 2022, Long et al., 2020; Shin et al., 2016).

Among the most important risk factors for development of school burnout connected to the school environment there are mentioned peer pressure, high levels of rivalry, and pressure for school achievements (Laursen et al., 2010). It was also proved that low levels of satisfaction with school environment, unsatisfactory school schedule, and long hours spent at school increase the risk of school burnout as well (Erturgut, & Soyşekerci, 2010).

When it comes to the family environment, the factors increasing the risk of school burnout include maladaptive, unsupportive family relationships. It was also proved that persons from families where some kind of violence, neglect or abandonment was present are at higher risk of developing school burnout (Salmela-Aro, Savolainen et al., 2009).

Individual factors connected with school burnout include low self-esteem, low sense of competence, and permanent stress (Vasalampi et al., 2009). Lack of life satisfaction and lowered mood also can increase the risk of school burnout (Fiorilli et al., 2017; Tomaszek, 2020). There is data proving that girls are more prone to school burnout than boys (Yang, & Farn, 2005). Among other individual factors corresponding with development of school burnout researchers mention frustration of the needs of self-fulfillment and autonomy, low resistance to stress and deficits in coping with stress (Ang, & Huan, 2006; Gao, 2023; Rosales-Ricardo et al., 2021). Ineffective learning strategies and personal beliefs about one's abilities also increase the risk of school fatigue (Bilge et al., 2014).

It is worth emphasizing that the results of the latest research prove that the most important risk factors for school burnout are stress connected to school, fear of school and beliefs about one's ineffectiveness (Gao, 2023). The symptoms of school burnout increase gradually, and all the above mentioned factors (i.e. stress connected to school, fear of school and beliefs about one's ineffectiveness) remain in transactional relationships which can either weaken or strengthen the symptoms of school burnout.

School burnout: protective factors

Data presented in the literature proves that male students are less prone to school burnout than female students (Salmela-Aro, Kiuru, Pietikäinen et al., 2008). There is a negative correlation between school achievements and school burnout (Bilge et al., 2014). Among other protective factors there are mentioned internal motivation, high self-efficacy and stable self-esteem (Atik, & Çelik, 2021; Pisarik, 2009; Schaufeli, & Salanova, 2007; Vasalampi et al., 2009).In order to help young people to overcome obstacles resulting in development of burnout symptoms it is recommended to observe very carefully any changes in the behavior of children and adolescents. Special attention should be given to female students, since they are more prone to development of school burnout (Erturgut, & Soyşekerci, 2010; Herrmann et al., 2019; Salmela-Aro, Kiuru et al., 2009; Salmela-Aro, Savolainen et al., 2009; Walburg, 2014). It is recommended to talk with students during homeroom time, and to monitor students' well being with self descriptive methods. Mentoring programs and/ or self-help groups for students could help them understand their feelings and overcome subjectively perceived difficulties (e.g. Cavanaugh et al., 2022). It would also be advisable to find special interests of every student, and to help them use it in order to increase their beliefs about their self-efficacy and self-esteem levels (e.g. Simonsen et al., 2023; Yu et al., 2023). Very important way for preventing school burnout in students would be to create several 'interest's groups' where different students could share their experiences and help each other.

Parental openness for offspring's needs and emotions are also very important factors protecting from development of school burnout (Hoferichter et al., 2024; Jiang et al., 2023; Serna, & Martínez, 2019; Wu et al., 2022). In order to help children and adolescents to overcome problems leading to school burnout parents should therefore spend time with their offspring. They should keep an open mind and listen carefully to what their children want to say. Also, they should stay very sensitive to any changes in children's mood. It is very important for parents to not give their offspring any advice but rather to listen to them and ask them open-ended, problematic questions so the children will find their own solutions to the problems. Also important is making sure the children understand that they can trust their parents with anything and if needed they can come ask for help.

In the matter of preventing young people from school burnout it is important to create safe school environment, provide social support from school staff, parents, and peers, ensure high levels of satisfaction with school, and

educational environment (Boudreau et al., 2004; Dyrbye et al., 2009; Erturgut, & Soyşekerci, 2010; Maddox, & Prinz, 2003). School schedule leaving spare time for pleasant activities, hobbies, and rest is also an important protective factor (Bernhard, 2007). In order to fulfill the above mentioned requirements school staff should plan school activities in congruence with developmental needs of their students. It would be recommended for school staff members to consult difficult decisions with specialists in developmental psychology, and also to participate in additional courses helping them to expand their knowledge concerning developmental needs of children and teenagers, mental functioning of students, symptoms of mental problems etc. In every school there should be a child psychologist who could help both staff members and students to overcome obstacles leading to school burnout. Schools should also offer to the students the possibility to anonymously share information concerning any type of difficulties students suffer. Encouraging students to involve in group activities and organizing the time so they could participate in such events would also be helpful. It is necessary to build a school environment in such a way that students will feel responsible for it. In order to do so it would be recommended to ask students to participate in making plans and decisions concerning school activities that are offered there.

Among protective factors for school burnout there are both individual variables and environmental factors. The main focus is on the variables related to social support. Social support networks are very important in establishing and maintaining feelings of self-efficacy. Those networks also allow one to obtain adequate help in situations that require it (Yıldız, & Kılıç, 2020). Crucial for the protection from school burnout is the school environment, especially when students can receive both academic and psychological support, as well as reduce stress and tension they experience (Dyrbye et al., 2009; Vasalampi et al., 2009). Additionally students should receive adequate attention from teachers and other members of school staff so they could learn about their strengths and weaknesses. They should be diagnosed with their temperamental traits and social skills, and based on the results of those diagnoses should be offered an individually fitted supportive and/ or strengthening program.

School burnout in an educational environment

Since children and adolescents spend most of their time at school it seems reasonable to describe more precisely the functioning of persons suffering or at risk of school burnout in the school environment. As studies results prove students suffering with school fatigue report, among others, heightened levels of depressive symptoms, disturbed sleep quality and physical complaints. They also are at greater risk of school abandonment or reduced academic performance (Gerber et al., 2015; Murberg, & Bru, 2007; Tuominen-Soini, & Salmela-Aro, 2014). Therefore it seems important to pay attention to the school system the students are in. It is possible that the main factors corresponding to their burnout are developed due to the educational system.

Attending school is connected with exposure to various stressful situations, while school burnout results from inadequate coping (Salmela-Aro, Kiuru et al., 2009). It is therefore possible that within the educational system burnout students will present behaviors corresponding to low levels of effectiveness during engagement with school related tasks. Low school effectiveness can cause a drop in school grades. At the same time, low grades, and school evaluation itself are perceived as highly unpleasant and stressful for students (OECD, 2017).In other words, the grading system can be both one of the causes and effects of school burnout observed in students. Grading system may be perceived by students as an external source of information about their identity and their significance in the school environment. They might perceive themselves throughout the grades they receive. Based on that belief students may conclude their opportunities and abilities are strictly limited to their grades. Receiving grades is also connected with stress and anxiety that substantially decrease students' well-being. The pressure of expectations for high achievers and fear of failure for those with lower learning abilities may have a substantial impact on everyday functioning of students. Grading systems impede creating and sustaining effective students' relationships with their teachers, and also can cause deterioration of relationships among students, creating a competitive environment and demotivating future efforts (e.g. Högberg et al., 2021; Liu, Xie et al., 2023).

Several factors corresponding with the educational system were proved to correlate with school burnout (e.g. Kalkan, & Dağlı, 2021; Meylan et al., 2020; Sipahioglu et al., 2023). Positive correlations were found between burnout symptoms and elevated school demands, including authority conflicts, emotional and mental demands. It is possible that in above mentioned conditions students experience high levels of stress resulting from external pressure. In such situations they can perceive themselves as left alone, and not having any support (Andrade et al., 2023; Barratt, & Duran, 2021; Ye et al., 2021). Also negative teaching environment, learning pressure and poor relationships were positively correlated with school burnout. Students experiencing highly demanding teaching curricula and intensive pressure from teachers may concentrate especially on passing the courses instead of effectively gaining knowledge. In such a situation they will probably face difficulties in remembering information for longer periods and they won't have internal motivation for studying and exploring their interests (Meylan et al., 2020).

Negative correlations on the other hand were found between burnout and teacher support, high levels of control perceived by students, and high levels of autonomy (Jagodics et al., 2023; Lin, & Yang, 2021).Having good relationships with teachers creates an opportunity to ask for help whenever it is needed. It is also connected with the belief that an individual is important for others, which contributes to increase in self-esteem. High self-efficacy on the other hand leads to effortful engagement in various activities that helps to overcome the risk of school burnout (Sharififard et al., 2020).

Development and maintenance of school burnout is also connected with different resources that can be observed and measured within the educational context. Poor access to books, technology or any other materials students use in everyday situations may cause a decrease in their mood and increase in their levels of stress, which in result may increase the risk of school burnout as well. Detrimental for students is also an unsupportive environment encompassed with negative relationships with teachers and other students. Poor educational opportunities as well as an unpleasant learning atmosphere usually results in an increase in stress levels which later can cause a perception of demands as overwhelming and lead to diminished capabilities to cope with difficult educational situations (Iuga et al., 2023).

It is therefore important for teachers and other staff members of the educational system to support children

and adolescents. It was proved that teachers are responsible for a good educational climate that includes high quality teaching practices, encouragement for students, and high beliefs in students' abilities to succeed (Meylan et al., 2020). It is important to present supportive attitudes toward students, because it has a positive effect on the decrease of stress levels students experience (Meylan et al., 2015). Also interesting is data gathered by Salmela-Aro, Kiuru, Pietikäinen and colleagues (2008), who proved that high teachers' motivation decreases the risk for development of burnout in students. It is believed that motivated teachers pay attention to the needs of their students, encourage them, treat them fairly, and create a positive atmosphere in the classroom which is needed for students' well-being. Another important factor contributing to the decrease in symptoms of school burnout is the teacher's interest in student's opinions. The signs of consideration for a student's point of view also helps to build a high sense of self-efficacy and self-worth in students, which serves as a protective factor for school burnout symptoms (Pilkauskaite-Valickiene et al., 2011).

When the school environment is taken into consideration it appears that easy access to professionals working at school helps students to feel safe (Salmela-Aro, Kiuru, Pietikäinen et al., 2008). When students believe they have control over things that are happening in the school, especially when they are adequately rewarded for their efforts, but also when they can influence the school program or teaching methods used at class they are less likely to develop school burnout. Another important thing that helps to sustain high levels of well-being and protects from symptoms of school fatigue is connected with an evaluation system not based on grades (Slivar, 2001).

Since teachers and other school staff members are highly responsible for creating a friendly school environment for students it is important to notice challenges corresponding to the well-being of school staff members. It appears that it is not possible to help students when teachers report low levels of well-being, and experience symptoms of burnout themselves (e.g. Agyapong et al., 2022; Granger et al., 2023; Madigan, & Kim, 2021). It is therefore important to take care of the needs and mental conditions of teachers and other school workers as well. Another important issue that should be taken into consideration are relationships students form with their parents and caregivers. The teachers and other specialists working at schools have only limited contact with adults students spend their time with after school. It is worth noticing that parents may create additional pressure or, as it was stated previously, present unsuitable parental attitudes that increase the risk of development of school burnout (e.g. Cengiz, & Peker, 2024; Tomaszek, & Muchacka-Cymerman, 2022; Wu et al., 2022; Zhang et al., 2023). Also, the school environment and teachers themselves have only limited chances to help students with their relationships with peers, which are another factor contributing to possible school burnout (e.g. Farina et al., 2020; Güler, & Bedel, 2022). Based on the above mentioned obstacles it seems that the best way to help prevent school burnout in students within the school system is to take care of the teachers to offer them practical workshops and/or professional help if needed, and also to observe students and to give them safe space for asking for help whenever they need it.

The data presented above proves that many factors connected with school burnout can be observed directly in the school environment, so the role of teachers and other staff members of the educational system is indispensable. One of the most important protective factors is positive perception of a school climate (Salmela-Aro, Kiuru, Nurmi et al., 2008). Another crucial aspect of the school environment correlating negatively with school burnout is teacher-student relationships. It was proved that the better relationships between teachers and students, the lower levels of burnout symptoms in students are observed (Roorda et al., 2017). It is therefore important to offer professional support and help to the teachers. First of all it is crucial to diagnose the needs and emotional states of teachers. Next to provide them with necessary support or help. Another important element of working with teachers and school staff members would be to provide them with necessary knowledge and assessment tools they could use in order to work with their students. Since parents play a crucial role in their offspring's well-being it would be also advisable to teach school staff members how to collaborate with parents and support teachers in such duties.

It is worth underlining that since students spend most of their time at schools it is crucial to plan, organize and evaluate prevention programs that will be carried on in an educational environment. Even though currently there are no such fully developed programs researchers and practitioners should work on such a solution. After creating such programs it would be necessary to evaluate their short-term and long-term effectiveness. There are several other research questions that should be taken into consideration while organizing and carrying out preventive programs for students, e.g. do all students benefit equally from the program?; do institutional changes result in general decrease of school burnout?; do interventions have a long-term effect on self-efficacy and well-being of students participating in the program? In other words, current data on decrease in students well-being, among others, due to school duties(e.g. Kassis et al., 2022; Marquez, & Long, 2021; Morinaj, & Held, 2023) proves the need for further research and preventive programs in that area, since there are still many unanswered questions in that matter.

School burnout: prevention

Since school burnout is a relatively stable, negative psychological state which includes emotional exhaustion, depersonalization and lowered satisfaction with conducted tasks (Lin, & Huang, 2014) it highly affects functioning and quality of life of students suffering with it. It might contribute to increased boredom and dissatisfaction with school, lower motivation to undertake educational activities, increase the risk of refusal of school attendance or complete school dropout (Wang et al., 2019). It's worth emphasizing that symptoms of school burnout observed in a child or an adolescent may disturb functioning of family system and negatively affect mental health of a suffering individual (Cheraghian et al., 2016; Murberg, & Bru, 2007; Salmela-Aro, Savolainen et al., 2009; Shen et al., 2012). It is therefore important to take preventive actions in order to reduce the intensity of symptoms of school burnout experienced by children and adolescents.

There are no formalized preventive programs aimed at helping people suffering from school burnout or at risk of developing school fatigue. The help offered to students at risk of educational burnout should be multifaceted and include individual as well as group interventions. Individual interventions should comply with activities devoted to the development and maintenance of self-esteem, coping with stress, and abilities needed for planning. Group interventions on the other hand should serve as a basis for peer support networks. It is also

important to offer adequate support for family systems in which there are children and/ or adolescents at risk of school burnout. Another important aspect of preventive programs should be oriented at educative programs for school staff members and aimed at developing tools that teachers and other school workers could use in everyday situations.

Since preventive factors for school burnout include high need for self-efficacy and high levels of control it seems reasonable to include in the intervention program module on self-efficacy based mostly on Bandura's self-efficacy theory (Bandura, 1977). According to Bandura (1977) self-efficacy is connected with a belief that an individual is able to succeed in a particular situation. Self-efficacy develops based on four important elements: (1) performance outcomes, (2) vicarious experiences, (3) verbal persuasion, and (4) physiological feedback. The most crucial are individually perceived experiences. The more positive previous outcomes of an individual are, the higher their beliefs about the competence level in similar tasks. Another crucial element of self-efficacy is connected to the process of observing others, according to the rule 'if someone was able to succeed in this task I can do it myself as well'. Individuals encouraged by others to perform in specific activities are also more prone to do so. The last factor contributing to self-efficacy is the subjective interpretation of physiological arousal observed in the body during specific situations. The more positive interpretation of internal arousal, the greater the individual's level of self-efficacy (Bandura, 1977). Based on the theory described above it may be hypothesized that preventive programs for students at risk of school burnout should include both individual and group modules. During the program an individual should have an opportunity to learn from their own experiences, observe and listen to others conducting specific activities, work with mentors and specialists helping them to understand situations they are involved in and get motivated, and to observe their own functioning.

Preventive programs for children and adolescents should start with psychoeducation. At this point young people should be introduced with information concerning symptoms of school burnout and reasons for why those symptoms appear presented adequately to the age of the recipients. Next should be the time for diagnosis, including assessment of both strengths and weaknesses. After the assessment students should be divided into groups in which they could work on their specific needs in the area of school burnout. Group work should include different modules aiming at strengthening and maintenance of well-being, time management, and other important features designed for improvement of functioning. Among activities aimed at improvement of well-being there should be exercises increasing self-efficacy. Also important should be actions oriented at reduction of school anxiety, and development of adaptive methods of coping with stress. Support groups for children and teenagers should be organized in such a manner that would gather people experiencing different intensity of particular problems. This way young people will be able to support each other, and to strengthen their sense of self-efficacy.

Activities addressed to support family systems also should start with a psychoeducation program. Improvement of functioning of children and adolescents is possible when parents and caretakers will lessen the pressure for school achievements. Therefore in the first step of the preventive program parents should be informed about the short-term and long-term consequences of putting pressure on offspring's school achievements. Also important are leads on healthy ways for supporting and motivating children and teenagers. It would be advisable to organize self-support groups in which parents could share their observations, fears, and problems, as well as discuss their successes, so others could use their narrations as a model example of correct parental attitudes.

Teachers and staff members working at schools and in other educational facilities should be introduced with psychoeducational materials and diagnostic tools based on which they could verify their own methods of work. According to the results they would have gathered they should verify their own attitudes as supportive or overloading students. Such diagnosis could serve as a starting point for other activities and possible modifications of methods of work teachers use in everyday situations. Proposed approach would increase the openness of the educational system for the students' needs which is crucial to ensure young people the sense of safety and psychological comfort that will secure them from school burnout.

Table 2. Proposed modules in preventive programs of school burnout

Recipients	Module elements
Children and adolescents	**Individual work**
	Psychoeducation
	Diagnostic assessment
	Individual support sessions
	Individual sessions corresponding to group work
	Tutoring sessions
	Mentoring sessions
	Group work
	Supportive groups network
	Activities aimed at development of individual needs
	Activities aimed at strengthening individual abilities
	Activities aimed at developing and strengthening resilience
Parents and caregivers	Psychoeducation
	Individual support sessions
	Parent-child sessions
	Supportive groups network
Teachers and staff members of the educational facilities	Psychoeducation
	Diagnosis of individual teaching styles
	Workshops on active teaching styles
	Mentoring sessions
	Supportive groups network

Table 2 includes a short, general description of elements that should be taken into consideration during preparation of a preventive program for school burnout. It should be emphasized that all the information and leads given above are only introductory, and hypothetical in their nature. It seems reasonable to apply them during the preparation of systematic preventive programs that could be introduced in schools and other educational facilities. Considering the alarming mental state of present-day children and adolescents, it is justified to create the above mentioned preventive program. As it was stated previously, it is crucial to provide comprehensive support and care to entire systems in which children and teenagers at risk of school burnout function on a daily basis. It is necessary to take individual actions aimed at modifying maladaptive behaviors and beliefs of young people. However, for these modifications to result in long-term benefits, they must be supported by the family and educational environment in which an individual lives on a daily basis. Since the mechanisms responsible for development and maintenance of school burnout are probably transactional in their nature (e.g. Benedetti et al., 2020; Chan, 2021) it is also important to evaluate preventive programs offered to students at risk of school burnout. It is possible that application of certain actions and activities will result in modification of student's behavior and well-being, so the activities proposed for an individual should be modified adequately. Also it is important to take into consideration individual differences, individual, and developmental needs of persons participating in the program. Therefore it is important to periodically verify whether the activities offered within the program are effective. Whenever there would be no change after implementation of the program the program should be re-analyzed and, if needed, modified.

Guidelines for teachers and staff members of educational facilities

As it was stated in previous paragraphs of this text, the school environment is very important for students' well-being. It can contribute to the development and maintenance of school burnout as well as play a crucial role in decreasing the symptoms of school fatigue (e.g. Salmela-Aro, Kiuru, Pietikäinen et al., 2008; Söderholm et al., 2022). It is therefore important that teachers and other staff members of the school environment actively engage in helping students to gain and maintain high levels of well-being. They can promote students' self-care by giving them some advice concerning healthy habits (e.g. exercises, sleep hygiene), and effective stress management techniques (e.g. breathing exercises, mindfulness). It is also crucial to advise students about the importance of regular breaks and finding time for hobbies, or social activities.

Since there are no specific programs aimed at reducing the risk of school burnout in students it seems justified to build a preventive program based on the self-efficacy theory (Bandura, 1977) and resilience theories (e.g. Richardson, 2002; Rutter, 2002). According to those approaches an individual is able to adapt to difficulties and learn from their previous experiences, so with time they will perform better and report less problems (Richardson, 2002; Rutter, 2002). Bandura (1977) argued that the development of self-efficacy involves observed individual performance outcomes, observations of others' performance, adaptation of tips from other people, and positive interpretation of physiological feedback. At the same time resilience is formed on personal experience that includes self-observation and effective interactions between risk and protective factors (Richardson, 2002; Rutter, 2002). Since new behaviors can be acquired in social context not only through motor reproduction but also with observation of other people's behaviors or direct verbal instructions (Bandura, 1977) it seems reasonable to organize preventive programs for students at risk of school burnout in the school environment.

There are no specific training programs that teachers could attend in order to expand their knowledge and skills to more effectively support their students, but there are some courses that could be useful in that matter. The ability to recognize early symptoms of school burnout could result from bibliography and courses offered online (e.g. https://marshallelearning.com/blog/spot-student-mental-health/, https://www.samhsa.gov/mental-health/how-to-talk/educators). It is also recommended to look at the mental health institutions and/ or at the universities for specific courses aimed at broadening knowledge on mental health prepared for teachers and school staff members. Another skill crucial for efficacious prevention of school burnout includes effective communication. This can be acquired through communication skills training and courses on effective communication, some of which are also available online. Teachers and other school staff members should also know some intervention techniques that could be useful in the classroom and during individual consultations. The most recommended for that matter would be solution-focused brief therapy techniques, also useful could be coaching and mentoring techniques that are taught during different basic level and advanced level courses. At the same time it would be desirable to create in the future a single supportive program for teachers, where they will be equipped with all the tools necessary for working with students at risk of school burnout.

Teachers could also engage in popularization of time management skills. There is data proving that there is a correspondence between time management skills, self-efficacy and academic performance (e.g. Bargmann, & Kauffeld, 2023; Sevari, & Kandy, 2011). It would be therefore recommended to give students advice about the importance of weekly and daily schedules, or introduce information on managing large assignments into smaller steps. Teachers could alsopresent advantages of students' time protection with distraction-free study periods. Useful for the students would also be classes on tasks prioritization (for the data on relationships between stress, time management and academic achievement see for example Ahmady et al., 2021; Häfner et al., 2015).

Developing or strengthening students' self-efficacy could be acquired through lessons on setting goals and boundaries. In the literature there is data proving self-efficacy to be one of the important factors for management of school burnout (e.g. Morando et al., 2023; Simosen et al., 2023). First of all teachers should inform their students about realistic, achievable, and specific goals and their relationships with internal motivation. Then they should present the data on risks of overcommitment, and emphasize the importance of skills needed to recognize, and communicate one's needs. Also important, and connected with the above mentioned need is setting boundaries, and forming the ability to refuse others and introduce self-care.

In order to function well students need support from others (e.g. Andrade et al., 2023; Liu, & Cao, 2022; Ye et al., 2021), therefore it would be recommended that teachers and other staff members at schools encourage students to

look for other people and ask them for their help and support. Sometimes teachers should prove that asking for help is desirable, and corresponds with high levels of personal and mental strength. Teachers may also help students to form study groups or introduce mentoring programs. Very helpful should be conducting class activities according to the rules of inclusive classroom communities (for more data on effectiveness of inclusiveness at schools see Boyle et al., 2023; Panesi et al., 2020; Wächter et al. 2024).

In order to overcome students' ineffective study habits it would be recommended to use different active learning techniques, encourage students to create and present to others personalized study plans. It is important to remember about planning short breaks during longer periods of studying and working in short time intervals, no longer than 30 minutes. When needed, teachers should also support their students with tutoring programs, and encourage them to look for individual, personalized study methods (for effectiveness of tutoring programs see for example Ballestar et al., 2024; Rothman, & Henderson, 2011).

Based on the information stated above it should be emphasized that the role of the teachers and other staff members is irreplaceable in helping children and adolescents to overcome symptoms of school burnout. It is important for teachers to truly involve themselves into their students' lives. It's crucial to listen to the students, and to devote time and energy to help them find the solutions for the problems they are referring to. What's worth emphasizing is that students have to be actively involved in the process, and not only passively receive help from adults, because only with their own activity students will be able to develop their self-efficacy.

SUMMARY

School burnout is one of the factors significantly reducing the quality of life and contributing to the development of physical and mental problems in children and adolescents (Bask, & Salmela-Aro, 2013). It is therefore necessary to take actions aimed at providing support to children and teenagers at risk of school fatigue. Activities aimed at increasing young people's skills including the ability to use adaptive strategies to cope with stress may be of great importance in this respect. It is important to build young people's resilience as well. Activity aimed at formation of positive attitudes towards the future and developing the ability to set achievable goals, as a strategy that increases the subjective sense of quality of life, may also be helpful in the process of reducing the risk of school burnout (Aypay, 2016; Uskul, & Greenglass, 2005).

It is important that professionals (including school psychologists, counselors, and teachers) working with students on an everyday basis were very attentive to the early signs of school burnout in their students. Presented text might therefore serve as a set of basic guidelines for recognizing basic symptoms, which include long term fatigue and intellectual exhaustion, difficulties in absorbing information and problems with concentration, unwillingness to study, low motivation to attend classes and perform academically, inability to meet important deadlines, general decline in an academic performance, apathy toward educational topics and decrease in creativity level, and loss of confidence (Atik, & Çelik 2021; Aypay, & Sever 2015; Kuittinen, & Meriläinen, 2011; Salmela-Aro, Kiuru, & Nurmi, 2008; Widlund et al., 2021; Yıldız, & Kılıç 2020). In the presented text professionals will also find general guidelines on how to help their students at risk of school burnout. First of all it is important to recognize the symptoms, next it is necessary to modify the approach to students with lessening the pressure, giving more free time for pleasant activities, helping students to manage their time, and to find supportive peers. It might be helpful to use some approaches oriented on effective communication and problem solving techniques. Based on the presented articles readers will learn what steps to take in order to prevent their students from school burnout.

As indicated by the results of studies carried out to date, well-being and a high sense of self-efficacy are protective factors against school burnout (Bilge et al., 2014), therefore helping young people to actively participate in a supportive school, family and peer environment may be crucial to protect them against the development of school burnout. Another important factor that reduces the risk of student burnout is an open and accepting school environment that does not generate excessive pressure and does not excessively increase the level of stress experienced by students (Bilge et al., 2014). For this reason, the involvement of school system employees in preventive activities seems irreplaceable.

Presented article serves only as an introduction to the topic of school burnout and does not present fully worked out solutions to the problem. In the next steps, the focus should be directed to diagnosis of the school burnout. It is necessary to describe the prevalence of the problem of school burnout among students in late childhood and early adolescence. It is justified to analyze the phenomenon of student burnout according to age, gender and other sociodemographic variables. Next, it is necessary to develop prevention programs that would enable students at risk or already affected by burnout to get the help they need. It should therefore be emphasized that empirical research on the topic of school burnout, and effective intervention methods for students at risk of school burnout is needed. It seems that identification of efficacious interventions in the area of school burnout could offer clear direction for future research in this area.

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REFERENCES

Aghajani Liasi, G., Mahdi Nejad, S., Sami, N., Khakpour, S., & Ghorbani Yekta, B. (2021). The prevalence of educational burnout, depression, anxiety, and stress among medical students of the Islamic Azad University in Tehran, Iran.*BMC Medical Education, 21*, 471. doi: 10.1186/s12909-021-02874-7.

Agyapong, B., Obuobi-Donkor, G., Burback, L., & Wei, Y. (2022). Stress, burnout, anxiety and depression among teachers: A scoping review. *International Journal of Environmental Research and Public Health, 19*(17), 10706. doi: 10.3390/ijerph191710706.

Ahmady, S., Khajeali, N., Kalantarion, M., Sharifi, F., & Yaseri, M. (2021). Relation between stress, time management, and academic achievement in preclinical medical education: A systematic review and meta-analysis. *Journal on Education and Health Promotion, 10*, 32. doi: 10.4103/jehp.jehp_600_20.

Alsharif, M., Almadani, N., Mahmoud, R.Y., Alsharif, A., Al-Maweri, S.A., & Kassim, S. (2023). Impact of resilience and environmental stress on burnout of students in public and private dental schools in Western Saudi Arabia. *Nigerian Journal of Clinical Practice, 26*(2), 162-168. doi: 10.4103/njcp.njcp_35_22.

Andrade, D., Ribeiro, I.J.S., Prémusz, V., & Maté, O. (2023). Academic burnout, family functionality, perceived social support and coping among graduate students during the COVID-19 pandemic. *International Journal on Environmental Research and Public Health, 20*(6), 4832. doi: 10.3390/ijerph20064832.

Andriyani, A., Himma, A.D., Alizar, S.A., Amin, Z.N., & Mulawarman, M. (2017).The relationship of anxiety, school burnout and well-being in high school students. advances in social science. *Advances in Social Science, Education and Humanities Research, 158. Proceedings of the International Conference on Teacher Training and Education 2017 (ICTTE 2017)*. 130-135, doi: 10.2991/ictte-17.2017.5.

Ang, R.P., & Huan V.S. (2006). Relationship between academic stress and suicidal ideation: testing for depression as a mediator using multiple regression. *Child Psychiatry and Human Development, 37*, 133-143.

Atik, S., & Çelik, O.T. (2021).Analysis of the relationships between academic motivation, engagement, burnout and academic achievement with structural equation modelling. *International Journal of Contemporary Educational Research, 8*(2), 118-130.

Aypay, A. (2011). Elementary School Student Burnout Scale For Grades 6-8: A study of validity and reliability. *Educational Sciences: Theory & Practice, 11*(2), 520-527.

Aypay, A. (2012). Secondary School Burnout Scale (SSBS). *Educational Science: Theory & Practice, 12*(2), 782-787.

Aypay, A. (2016). A positive model for reducing and preventing school burnout in high school students. *Educational Sciences: Theory & Practice, 17*(4), 1345-1359.

Aypay, A., & Sever, M. (2015). School as if a workplace: Exploring burnout among high school students. *Journal of Theory and Practice in Education, 11*(2), 460-472.

Ballestar, M.T., Cuerdo Mir, M., Doncel Pedrera, L.M., & Sainz, J. (2024). Effectiveness of tutoring at school: A machine learning evaluation. *Technological Forecasting and Social Change, 199*, 123043. doi: 10.1016/j.techfore.2023.123043.

Bandura, A (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191–215.

Bargmann, C., & Kauffeld, S. (2023). The interplay of time management and academic self-efficacy and their influence on pre-service teachers′ commitment in the first year in higher education. *Higher Education, 86*, 1507–1525. doi: 10.1007/s10734-022-00983-w.

Barratt, J.M., & Duran, F. (2021). Does psychological capital and social support impact engagement and burnout in online distance learning students? *Internet and Higher Education, 51*, 100821. doi: 10.1016/j.iheduc.2021.100821.

Bask, M., & Salmela-Aro, K. (2013). Burned out to drop out: Exploring the relationship between school burnout and school dropout. *European Journal of Psychology of Education, 28*(2), 511-528.

Benedetti, G., Benelli, E., & Zanchetta, M. (2020).Development of a transactional analysis diagnostic tool for burnout with a case study application in Switzerland. *International Journal of Transactional Analysis Research and Practice, 11*(1), 13-31. doi: 10.29044/v11i1p13.

Bernhard, H. (2007). Survey of burnout among college music majors. *College Student Journal, 41*(2), 392-401.

Besschetnova, O.V., Volkova, O.A., Aliev, S.I., Ananchenkova, P.I., & Drobysheva, L.N. (2021).The effect of digital mass media on mental health of children and youth. *Problems of Social Hygiene, Public Health and History of Medicine, 29*(3), 462-467.

Bilge, F., Tuzgöl Dost, M., & Çetin, B. (2014). Factors affecting burnout and school engagement among high school students: Study habits, self-efficacy beliefs, and academic success. *Educational Sciences: Theory & Practice, 14*(5), 1721-1727.

Boudreau, D., Santen, S.A., Hemphill, R.R., & Dobson, J. (2004). Burnout in medical students: Examining the prevalence and predisposing factors during the four years of medical school. *Annuals of Emergency Medicine, 44*(4), 575-576.

Boyle, C., Allen, K.A., Bleeze, R., Bozorg, B., & Sheridan, K. (2023).Enhancing positive wellbeing in schools: the relationship between inclusion and belonging. In: M.A. White, F. McCallum, C. Boyle, (eds.), *New research and possibilities in wellbeing education*. Springer.

Bozzola, E., Spina, G., Agostiniani, R., Barni, S., Russo, R., Scarpato, E., Di Mauro, A., Di Stefano, A.V., Caruso, C., Corsello, G., & Staiano, A. (2022). The use of social media in children and adolescents: Scoping review on the potential risks. *International Journal of Environmental Research and Public Health, 19*(16), 9960. doi: 10.3390/ijerph19169960.

Carpiniello, B. (2023). The mental health costs of armed conflicts-a review of systematic reviews conducted on refugees, asylum-seekers and people living in war zones. *International Journal on Environmental Research and Public Health, 20*(4), 2840. doi: 10.3390/ijerph20042840.

Cavanaugh, K., Cline, D., Belfer, B., Chang, S., Thoman, E., Pickard, T., & Holladay, C.L. (2022). The positive impact of mentoring on burnout: Organizational research and best practices. *Journal of Interprofessional Education & Practice, 28*, 100521. doi: 10.1016/j.xjep.2022.100521.

Cengiz, S., & Peker, A. (2024). Antecedents of school burnout: A longitudinal mediation study. *Social Psychology of Education: An International Journal*. Advance online publication. doi: 10.1007/s11218-024-09887-2.

Chacón-Cuberos, R., Martínez-Martínez, A., García-Garnica, M., Pistón-Rodríguez, M.D., & Expósito-López, J. (2019). The relationship between emotional regulation and school burnout: structural equation model according to dedication to tutoring. *International Journal on Environmental Research and Public Health, 16*(23), 4703. doi: 10.3390/ijerph16234703.

Chałupnik, A., Borkowska, A., Chilimoniuk, Z., Dobosz, M., Wieteska, M., & Mizerski, G. (2022). Impact of the COVID-19 pandemic on the mental health of selected population groups. *Journal of Education, Health and Sport, 12*(3), 32-41.

Chan, S. (2021).The interplay between relational and transactional psychological contracts and burnout and engagement. *Asia Pacific Management Review, 26*(1), 30-38.

Chang, K.-H., Lu, F. J. H., Chyi, T., Hsu, Y.-W., Chan, S.-W., & Wang, E. T. W. (2017).Examining the stress-burnout relationship: the mediating role of negative thoughts. *PeerJ 5,* e4181. doi: 10.7717/peerj.4181.

Cheraghian, H., Faskhodi, B.Z., Heidari, N., & Sharifi P.Y. (2016).Self-compassion as a relationship moderator between academic burnout and mental health in students. *International Journal of Academic Research and Progress in Education and Development, 5*, 128-138.

Długosz, P., & Liszka, D. (2021). The relationship between mental health, educational burnout and strategies for coping with stress among students: A cross-sectional study of Poland. *International Journal of Environmental Research and Public Health, 18*, 10827. doi: 10.3390/ijerph182010827.

Dyrbye, L.N., Thomas, M.R., Harper, W., Massie, F.S. Jr, Power, D.V., Eacker, A., Szydlo, D.W., Novotny, P.J., Sloan, J.A., & Shanafelt T.D. (2009). The learning environment and medical student burnout: a multicentre study. *Medicine and Education,43*(3), 274-282.

Erdinç, D., Duru, S., & Balkis, M. (2014). Analysis of relationships among burnout, academic achievement, and self-regulation. *Educational Sciences Theory and Practice, 14*(4), 12-22.

Erturgut, R., & Soyşekerci, S. (2010). An empirical analysis on burnout levels among second year vocational schools students. *Procedia Social and Behavioral Sciences, 2*, 1399-1404.

Farina, E., Ornaghi, V., Pepe, A., Fiorilli, C., & Grazzani, I. (2020). High school student burnout: Is empathy a protective or risk factor?.*Frontiers in Psychology, 11*, 897. doi: 10.3389/fpsyg.2020.00897.

Felaza, E., Findyartini, A., Setyorini, D., & Mustika, R. (2020). How motivation correlates with academic burnout: Study conducted in undergraduate medical students. *Education in Medicine Journal*, *12*(1), 43–52. doi: 10.21315/eimj2020.12.1.5.

Fiorilli, C., De Stasio, S., Di Chiacchio, C., Pepe, A., & Salmela-Aro, K. (2017). School burnout, depressive symptoms and engagement: Their combined effect on student achievement. *International Journal of Educational Research, 84*, 1-12.

Fiorilli, C., Pepe A., & Salmela-Aro, K. (2017). School burnout, depressive symptoms and engagement: Their combined effect on student achievement. *International Journal of Educational Research*, *84*, 1-12. doi: 10.1016/j.ijer.2017.04.001.

Gao, X. (2023). Academic stress and academic burnout in adolescents: a moderated mediating model. *Frontiers in Psychology, 14*, 1133706. doi: 10.3389/fpsyg.2023.1133706.

Gerber, M., Lang, C., Feldmeth, A.K., Elliot, C., Brand, S., Holsboer-Trachsler, E., & Pühse, U. (2015). Burnout and mental health in Swiss vocational students: The moderating role of physical activity. *Journal of Research on Adolescence, 25*, 63–74.

Granger, K.L., Sutherland, K.S., Conroy, M.A., Dear, E., & Morse, A. (2023).Teacher burnout and supporting teachers of students with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders, 31*(2), 144-153, doi: 10.1177/10634266221149970.

Gubbels, J., van der Put, C.E. & Assink, M. (2019). Risk factors for school absenteeism and dropout: A meta-analytic review. *Journal of Youth and Adolescence 48*, 1637–1667. doi: 10.1007/s10964-019-01072-5.

Güler, G., & Bedel, A. (2022). School burnout in middle school students: Role of problem solving skills, peer relations and perceived school experiences. *International Journal of Psychology and Educational Studies, 9*(2), 340–352. doi: 10.52380/ijpes.2022.9.2.529.

Häfner A., Stock A., & Oberst, V. (2015).Decreasing students' stress through time management training: an intervention study. *European Journal of Psychology of Education, 30*(1), 81-94. doi: 10.1007/s10212-014-0229-2.

Hauser-Cram, P., Nugent, J.K., Thies, K., & Travers, J.F. (2013).*The development of children and adolescents: An applied perspective*. Wiley.

Herrmann, J., Koeppen, K., & Kessels, U. (2019). Do girls take school too seriously? Investigating gender differences in school burnout from a self-worth perspective. *Learning and Individual Differences, 69*, 150-161.

Hoferichter, F., Lohilahti, J., Hufenbach, M. Grabe HJ, Hageman G & Raufelder D. (2024). Support from parents, teachers, and peers and the moderation of subjective and objective stress of secondary school student. *Scientific Reports, 14*, 1161. doi: 10.1038/s41598-024-51802-4.

Högberg, B., Lindgren, J., Johansson, K., Strandh, M., & Petersen, S. (2021). Consequences of school grading systems on adolescent health: evidence from a Swedish school reform. *Journal of Education Policy, 36*(1), 84–106. doi: 10.1080/02680939.2019.1686540.

Ingram, K.M., Espelage, D.L., Davis, J.P., & Merrin, G.J. (2022). Family violence, sibling, and peer aggression during adolescence: Associations with behavioral health outcomes. *Frontiers in Psychiatry, 11*, 26. doi: 10.3389/fpsyt.2020.00026.

Iuga, I.A., David, O.A., & Danet, M. (2023). Student burnout in children and adolescents: The role of attachment and emotion regulation. *Children, 10*, 1443. doi:10.3390/children10091443.

Jagodics, B., Nagy, K., Szénási, S., Varga, R.,& Szabó, É. (2023). School demands and resources as predictors of

student burnout among high school students. *School Mental Health, 15*, 90–104.

Jiang, Y., Lin, L., & Hu, R. (2023). Parental phubbing and academic burnout in adolescents: The role of social anxiety and self-control. *Frontiers in Psychology, 14*, 1157209. doi: 10.3389/fpsyg.2023.1157209.

Kalkan, F., & Dağlı, E. (2021). The relationships between school climate school belonging and school burnout in secondary school students. *International Journal of Contemporary Educational Research, 8*(4), 59-79. doi: 10.33200/ijcer.878682.

Kassis, W., Janousch, C., Sidler, P., Aksoy, D., Favre, C., & Ertanir, B. (2022). Patterns of students' well-being in early adolescence: A latent class and two-wave latent transition analysis. *PLoS One*, *17*(12), e0276794. doi: 10.1371/journal.pone.0276794.

Kossewska, J., Tomaszek, K., Macałka, E. & Początek, G. (2022). School burnout and depression symptoms of Polish high school graduates in the context of COVID-19 pandemic. *Psychologia Rozwojowa, 27*(4), 85–99. doi:10.4467/20843879PR.22.026.18085.

Kuittinen, M., & Meriläinen, M. (2011).The effect of study-related burnout on student perceptions.*Journal of International Education in Business, 4*, 42-62.

Lacombe, N., Hey, M., Hofmann, V., Pagnotta, C., & Squillaci, M. (2023).School burnout after COVID-19, prevalence and role of different risk and protective factors in preteen students. *Children, 10*(5), 823. doi: 10.3390/children10050823.

Laursen, B., Bukowski, W.M., Nurmi, J.-E., Marion, D., Salmela-Aro, K., & Kiuru, N. (2010). Opposites detract: Middle school peer group antipathies. *Journal of Experimental Child Psychology, 106*, 240-256.

Lee, J., Puig, A., Kim, Y., Shin, H., & Lee, S.M. (2010). Academic burnout profiles in Korean adolescents. *Stress and Health, 26*(5), 404–416.

Lin, F., & Yang, K. (2021).The external and internal factors of academic burnout. In: *Proceedings of the 2021 4th International Conference on Humanities Education and Social Sciences (ICHESS 2021*), Xishuangbanna, China, 29–31 October 2021, 1815–1821.

Lin, S.H., & Huang, Y.C. (2014).Life stress and academic burnout. *Active Learning in Higher Education 15*, 77-90.

Liu, Y., & Cao, Z. (2022). The impact of social support and stress on academic burnout among medical students in online learning: The mediating role of resilience. *Frontiers in Public Health, 10*, 938132. doi: 10.3389/fpubh.2022.938132.

Liu, Y., Zhang, Y., Peng, C., Li, Y., & Tan, Q. (2023). Cumulative ecological risk and academic burnout in chinese college students: A moderated mediation model. *International Journal on Environmental Research and Public Health, 20*(3), 1712. doi: 10.3390/ijerph20031712.

Liu, Z., Xie, Y., Sun, Z. Liu, D., Yin, H., & Shi, L. (2023). Factors associated with academic burnout and its prevalence among university students: a cross-sectional study. *BMC Medical Education, 23*, 317. doi: 10.1186/s12909-023-04316-y.

Long, E., Gardani, M., McCann, M., Sweeting, H., Tranmer, M., & Moore L. (2020).Mental health disorders and adolescent peer relationships. *Social Science and Medicine, 253*, 12973. doi: 10.1016/j.socscimed.2020.112973.

Luo, Y., Zhang, H., & Chen, G. (2020). The impact of family environment on academic burnout of middle school students: The moderating role of self-control. *Children and Youth Services Review, 119*, 105482, doi: 10.1016/j.childyouth.2020.105482.

Macałka, E., Tomaszek, K., & Kossewska, J. (2022). Students' depression and school burnout in the context of family network acceptance and deviation from balanced time perspective. *Education Sciences, 12*(3), 157. doi: 10.3390/educsci12030157.

Maddox, S.J., & Prinz, R.J. (2003). School bonding in children and adolescents: Conceptualization, assessment, and associated variables. *Clinical Child and Family Psychology Review, 6*(1), 31-49.

Madigan, D.J., & Curran, T. (2021). Does burnout affect academic achievement? A meta-analysis of over 100,000 students. *Educational Psychology Review, 33*(2), 387–405. doi: 10.1007/s10648-020-09533-1.

Madigan, D.J., & Kim, L.E. (2021). Does teacher burnout affect students? A systematic review of its association with academic achievement and student-reported outcomes. *International Journal of Educational Research, 105*, 101714. doi: 10.1016/j.ijer.2020.101714.

Makwana, N. (2019). Disaster and its impact on mental health: A narrative review. *Journal on Family Medicine and Primary Care, 8*(10), 3090-3095.

Marquez, J., & Long, E.A (2021). Global decline in adolescents' subjective well-being: a comparative study exploring patterns of change in the life satisfaction of 15-year-old students in 46 countries. *Child Indicators Research, 14*, 1251–1292. doi: 10.1007/s12187-020-09788-8.

May R.W., Seibert G.S., Sanchez-Gonzalez M.A., & Fincham F.D. (2016). Physiology of school burnout in medical students: Hemodynamic and autonomic functioning. *Burnout Research, 3*, 63-68.

May, R.W., Sanchez-Gonzalez, M.A., & Fincham, F.D. (2014). School burnout: increased sympathetic vasomotor tone and attenuated ambulatory diurnal blood pressure variability in young adult women. *Stress, 18*(1), 11–19.

May, R.W., Sanchez-Gonzalez, M.A., Brown, P.C., Koutnik, A.P., & Fincham, F. D. (2014). School burnout and cardiovascular functioning in young adult males: a hemodynamic perspective. *Stress, 1*, 79–87.

McEown, K., McEown, M.S., & Oga-Baldwin, W.L.Q. (2023).The role of trait emotional intelligence in predicting academic stress, burnout, and engagement in Japanese second language learners. *Current Psychology, 43*, 1395–1405. doi: 10.1007/s12144-023-04296-8.

Meylan, N., Doudin, P.A., Curchod-Ruedi, D., & Stephan, P. (2015). School burnout and social support: The importance of parent and teacher support. *Psychologie Française, 60*, 1–15.

Meylan, N., Meylan, J., Rodriguez, M., Bonvin, P., & Tardif, E. (2020). What types of educational practices impact school burnout levels in adolescents?.*International Journal of Environmental Research and Public Health*, *17*(4), 1152. doi: 10.3390/ijerph17041152.

Morando, M., Smeriglio, R., Maggio, C., Di Nuovo, S., & Platania, S. (2023). Incidence and occurrence of academic burnout: The impact of personality, self-efficacy and self-esteem and post-pandemic effects. *Environment and Social Psychology, 8*(2), 1684. doi: 10.54517/esp.v8i2.1684.

Morinaj, J., & Held, T. (2023). Stability and change in student well-being: A three-wave longitudinal person-centered approach. *Personality and Individual Differences, 203*, 112015. doi: 10.1016/j.paid.2022.112015.

Moroń, M., & Atłas, K. (2022). Pandemic burnout, depression, and anxiety among adolescents: A network analysis. *Educational Studies Review, 40*, 231-254.

Murberg, T.A., & Bru, E. (2007).The role of neuroticism and perceived school-related stress in somatic symptoms among students in Norwegian junior high schools.*Journal of Adolescence, 30*, 203-212.

Murthy, R.S., & Lakshminarayana, R. (2006). Mental health consequences of war: A brief review of research findings. *World Psychiatry, 5*(1), 25-30.

OECD. (2017). *Results (Volume III): Students' well-being*. OECD.

Özhan, M.B., & Yüksel, G. (2021). The effect of school burnout on academic achievement and well-being in high school students: A holistic model proposal. *International Journal of Contemporary Educational Research, 8*(1), 145-162. doi: 10.33200/ijcer.824488.

Panesi, S., Bocconi, S., & Ferlino, L. (2020). Promoting students' well-being and inclusion in schools through digital technologies: Perceptions of students, teachers, and school leaders in Italy expressed through SELFIE piloting activities. *Frontiers in Psychology, 11*, 1563. doi: 10.3389/fpsyg.2020.01563.

Pilkauskaite-Valickiene, R., Zukauskiene, R., & Raiziene, S. (2011). The role of attachment to school and open classroom climate for discussion on adolescent's school-related burnout. *Procedia on Social Behvior, 15*, 637–641.

Pisarik, C.T. (2009). Motivational orientation and burnout among undergraduate college students. *College Student Journal, 43*(4), 1238-1252.

Pourghaz, A., Marziyeh, A., & Bikar, S. (2017). Affective structures among students and their relationship with academic burnout.*The New Educational Review, 50*, 47-55, doi: 10.15804/tner.2017.50.4.04.

Richardson, G.E. (2002). The metatheory of resilience and resiliency.*Journal of Clinical Psychology, 58*(3), 307–321. doi: 10.1002/jclp.10020.

Roorda, D.L.,Jak, S., Zee, M., Oort, F.J., & Koomen, H.M.Y. (2017). Affective teacher–student relationships and students' engagement and achievement: A meta-analytic update and test of the mediating role of engagement. *School Psychology Review, 46*, 239–261.

Rosales-Ricardo, Y., Rizzo-Chunga, F., Mocha-Bonilla, J., & Ferreira, J.P. (2021).Prevalence of burnout syndrome in university students: a systematic review. *Salud Mental, 44*, 91-102.

Rothman, T., & Henderson, M. (2011). Do school-based tutoring programs significantly improve student performance on standardized tests? *Research in Middle Level Education, 34*(6), 1-10.

Rutter, M. (2002). Resilience concepts and findings: implications for family therapy. *Journal of Family Therapy 21*(2), 119 – 144. doi: 10.1111/1467-6427.00108.

Salmela-Aro, K. & Tynkkynen, L. (2012).Gendered pathways in school burnout among adolescents. *Journal of Adolescence, 35*, 929–939.

Salmela-Aro, K., & Upadyaya, K. (2014). Developmental trajectories of school burnout: Evidence from two longitudinal studies. *Learning and Individual Differences, 36*, 60–68.

Salmela-Aro, K., & Upadyaya, K. (2017). Co-development of educational aspirations and academic burnout from adolescence to adulthood in Finland. *Research in Human Development, 14*(2), 106-121.

Salmela-Aro, K., & Upadyaya, K. (2020). School engagement and school burnout profiles during high school – The role of socio-emotional skills. *European Journal of Developmental Psychology, 17*(6), 943–964.

Salmela-Aro, K., Kiuru, N., & Nurmi, J.E. (2008). The role of educational track of adolescents' school burnout: A longitudinal study. *British Journal of Educational Psychology, 78*, 663-689.

Salmela-Aro, K., Kiuru, N., Leskinen, E., & Nurmi, J.E. (2009). School burnout inventory (SBI): reliability and validity. *European Journal of Psychological Assessment, 25*, 48-57.

Salmela-Aro, K., Kiuru, N., Pietikäinen, M., & Jokela, J. (2008). Does school matter? The role of school context for school burnout. *European Psychologist, 13*, 1 - 13.

Salmela-Aro, K., Savolainen, H., & Holopainen, L. (2009). Depressive symptoms and school burnout during adolescence: Evidence from two cross-lagged longitudinal studies, *Journal of Youth and Adolescence, 38*(10), 1316-1327.

Schaufeli, W.B., & Salanova, B. (2007). Efficacy or inefficacy, that's the question: Burnout and work engagement, and their relationships with efficacy beliefs. *Anxiety, Stress and Coping, 20*(2), 177-196.

Serna, C., & Martínez, I. (2019). Parental involvement as a protective factor in school adjustment among retained and promoted secondary students. *Sustainability, 11*(24), 7080. doi: 10.3390/su11247080.

Sevari K, Kandy M (2011). Time management skills impact on self-efficacy and academic performance . *Journal of American Science*, *7*(12), 720-726.

Sharififard, F., Asayesh, H., Hosseini, M.H.M., & Sepahvandi, M. (2020).Motivation, self-efficacy, stress, and academic performance correlation with academic burnout among nursing students. *Journal of Nursing and Midwifery Science, 7*, 88. doi: 10.4103/JNMS.JNMS_30_19.

Shen, Z., Liu, L., Cui, J., Chen, L., Peng, R., & Liu, N. (2012). Current status and progress of research on school aversion among primary and secondary school students in China, *Chinese Journal of School Health, 33*, 1278–1280.

Shin, K.M., Cho, S.M., Shin, Y.M., & Park, K.S. (2016). Effects of early childhood peer relationships on adolescent mental health: A 6- to 8-year follow-up study in South Korea. *Psychiatry Investigation, 13*(4), 383-388.

Simonsen, J., Karrasch, M., Laine, M., & Fagerlund, Å. (2023). Protective factors against school burnout symptoms in Finnish adolescents. *Nordic Psychology*, 1–23. doi: 10.1080/19012276.2023.2244678.

Sipahioglu, M., Manap, A., Dilekçi, Ü., & Murat, Y. (2023). Classroom emotional climate and school burnout in secondary school students: A hierarchical regression model. *Current Research in Social Sciences 9*(2), 113-129. doi: 10.30613/curesosc.1361793.

Slivar, B. (2001). The syndrome of burnout, self-image, and anxiety with grammar school students. *Horizon in Psychology, 10*, 21–32.

Söderholm, F., Lappalainen, K., Holopainen, L., & Viljaranta, J. (2022). The development of school burnout in general upper secondary education: the role of support and schoolwork difficulties. *Educational Psychology, 42*(5), 607–625. doi: 10.1080/01443410.2022.2054954.

Stoliker, B.E., & Lafreniere, K.D. (2015).The influence of perceived stress, loneliness, and learning burnout on university students' educational experience. *College Student Journal, 49*(1), 146–160.

Strelau, J. (1974). Temperament as an expression of energy level and temporal features of behavior. *Polish Psychological Bulletin, 5*, 119-127.

Strelau, J. (2008). *Temperament as a regulator of behavior: After fifty years of research*. Eliot Werner.

Sulea, C., van Beek, I., Sarbescu, P., Virga, D., & Schaufeli, W.B. (2015). Engagement, boredom, and burnout among students: Basic need satisfaction matters more than personality traits. *Learning and Individual Differences 42*, 132–138.

Tang, X., Upadyaya, K., & Salmela-Aro, K. (2021). School burnout and psychosocial problems among adolescents: Grit as a resilience factor. *Journal of Adolescence, 86*, 77-89.

Tomaszek, K. (2020). Why is it important to engage students in school activities? Examining the mediation effect of student school engagement on the relationships between student alienation and school burnout. *Polish Psychological Bulletin, 51*, 89–97.

Tomaszek, K., & Muchacka-Cymerman, A. (2022). Students' burnout in the e-school environment: pilot study results of the validation of the e-learning burnout scale. *International Journal of Research in E-learning, 8*(2), s. 1–28.

Tuominen-Soini, H., & Salmela-Aro, K. (2014). Schoolwork engagement and burnout among Finnish high school students and young adults: Profiles, progressions, and educational outcomes. *Developmental Psychology, 50*, 649–662.

Uskul, A.K., & Greenglass E.R. (2005).Psychological well-being in a Turkish-Canadian sample. *Anxiety, Stress, and Coping, 18*, 269-278.

Vasalampi, K., Salmela-Aro, K., & Nurmi, J.E. (2009). Adolescents' self concordance, school engagement, and burnout predict their educational trajectories. *European Psychologist, 14*(4), 332-341.

Vizoso, C., Arias-Gundín, O., & Rodríguez, C. (2019). Exploring coping and optimism as predictors of academic burnout and performance among university students. *Educational Psychology, 39*(6), 768–783. doi: 10.1080/01443410.2018.1545996.

Wächter, T., Gorges, J., Apresjan, S., & Lütje-Klose, B. (2024). How can inclusion succeed for all? Children's well-being in inclusive schools and the role of teachers' inclusion-related attitudes and self-efficacy. *Teaching and Teacher Education, 139*, 104411. doi: 10.1016/j.tate.2023.104411.

Walburg, V. (2014). Burnout among high school students: A literature review. *Children and Youth Services Review, 42*, 28–33. doi: 10.1016/j.childyouth.2014.03.020.

Wang, M., Guan, H., Li, Y., Xing, C., & Rui B. (2019). Academic burnout and professional self-concept of nursing students: a cross-sectional study. *Journal of Nurse Education Today, 77*, 27-31.

Widlund, A., Tuominen, H., & Korhonen, J. (2021). Development of school engagement and burnout across lower and upper secondary education: Trajectory profiles and educational outcomes. *Contemporary Educational Psychology, 66*, 101997. doi: 10.1016/j.cedpsych.2021.101997.

Wu, K., Wang, F., Wang, W., & Li, Y. (2022). Parents' education anxiety and children's academic burnout: the role of parental burnout and family function. *Frontiers in Psychology, 12*, 764824. doi: 10.3389/fpsyg.2021.764824.

Yang, H.-J., & Farn, C.K. (2005).An investigation the factors affecting MIS student burnout in technical-vocational college. *Computers in Human Behavior, 21*, 917-932.

Yao, X., Zhang, Y., & Wang, J. (2023). Analysis of the effects of parenting styles on learning burnout and the mediating effect of peer relationships among primary school students based on SPSS. In: Z. Zhan, B. Zou, & W. Yeoh (eds.), *Proceedings of the 2022 3rd International Conference on Big Data and Informatization Education (ICBDIE 2022), Atlantis Highlights in Computer Sciences 5*, 143–154. doi: 10.2991/978-94-6463-034-3_16.

Ye, Y., Huang, X., & Liu, Y. (2021). Social support and academic burnout among university students: A moderated mediation model. *Psychological Research and Behavioral Management, 14*, 335–344.

Yeom, Y.O., Hong, Y.P., Kim, K.M., Lee, Y.L., & Lim, M.H. (2020).The relationships between academic burnout, mental health, parental achievement pressure, and academic demand in high school students. *Stress, 28*(2), 61-67.

Yıldız, V.A., & Kılıç, D. (2020).Investigation of school burnout and school attachment among secondary school students. *Educational Sciences: Theory & Practice, 20*(3), 44-55.

Yu, W., Yao, W., Chen, M., Zhu, H., & Yan, J. (2023). School climate and academic burnout in medical students: a moderated mediation model of collective self-esteem and psychological capital. *BMC Psychology, 11*, 77. doi: 10.1186/s40359-023-01121-6.

Yusoff, M.S.B., Hadie, S.N.H. & Yasin, M.A.M. (2021). The roles of emotional intelligence, neuroticism, and academic stress on the relationship between psychological distress and burnout in medical students. *BMC Medical Education, 21*, 293. doi: 10.1186/s12909-021-02733-5.

Zhang, H., Li, S., Wang, R., & Hu, Q. (2023). Parental burnout and adolescents' academic burnout: Roles of parental harsh discipline, psychological distress, and gender. *Frontiers in Psychology, 14*, 1122986. doi: 10.3389/fpsyg.2023.

Zhang, R., Zhang, Y., & Dai, Z. (2022). Impact of natural disasters on mental health: A cross-sectional study based on the 2014 China Family Panel Survey. *International Journal on Environmental Research and Public Health, 19*(5), 2511. doi: 10.3390/ijerph19052511.